

Attorney Docket No. SABI-30190 (STC-03-0037)
Application No. 10/790,948
Amendment and Response

In the Claims

Please cancel claims 10-24.

1. (Original) A method of modifying a zeolite catalyst to increase selectivity of the catalyst for para-isomers in aromatic alkylation reactions, the method comprising dissolving alumina in a phosphorus-containing acid solution, and treating the zeolite with the dissolved alumina solution.
2. (Original) The method of claim 1, wherein:
the acid includes inorganic acids containing phosphorus.
3. (Original) The method of claim 1, wherein:
the acid includes at least one of phosphoric acid (H_3PO_4) and phosphorus acid (H_3PO_3) at a concentration of at least 50 by wt% of aqueous solution.
4. (Original) The method of claim 1, wherein:
dissolving the alumina includes dissolving the alumina in an excess of the acid.
5. (Original) The method of claim 1, wherein:

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the alumina is incorporated into the zeolite in an amount of greater than 0.01 gram of alumina per gram of zeolite.

6. (Original) The method of claim 1, wherein:

the phosphorus-containing acid solution is used in an amount of at least 0.1 g of phosphorus-containing acid solution per gram of zeolite.

7. (Original) The method of claim 1, wherein:

the zeolite catalyst is a ZSM-5-type zeolite catalyst with a silica to alumina ratio of from 25 to 1000.

8. (Original) The method of claim 1, wherein:

the treated ZSM-5 zeolite has total pore volume ranging from 0.10 ml/g to 0.20 ml/g.

9. (Original) The method of claim 1, wherein:

the modified catalyst has acid sites showing an ammonia desorption (NH₃-TPD) peak at 250-350 °C.

Claims 10-24 (Canceled)